

Date: Wed, 13 Jul 94 13:37:22 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #788
To: Info-Hams

Info-Hams Digest Wed, 13 Jul 94 Volume 94 : Issue 788

Today's Topics:

 900 MHz QRM DX record?
Anyone experienced with Cushcraft R7?
 August 73 for Ramsey Watchers
FCC accepts no data entry volunteers?
 FCC Delays now at 17 week
GPS Magellan....inaccurate readings?
 Icom 471a
Opening up Kenwood battery pack
Re: Does CW as a pre-req REALLY Work?
 TOWERS AND GUYS...

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 13 Jul 1994 15:11:07 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!
col.hp.com!srngenprp!glenne@network.ucsd.edu
Subject: 900 MHz QRM DX record?
To: info-hams@ucsd.edu

A follow-up note:

Well, I guess it may be close but probably no cigar for the DX QRM
record. I'm quite confident that the radar was coming through the duct
but it looks like it was probably from someone "driving through". I got
a very useful response from Fred Schader wa7aai, in part:

> One of my co-workers is a Navy ship radar expert. He said that you
> exactly described an air search radar present on Navy ships [SPS-49(V)].
> He believes that your location is a great circle route to the far east
> where these ships often operate this radar. He also has heard of this
> type of propagation at these distances before (sorry no DX record!).
> The ERP of these units is 10MW average and 280 MW peak (that's how to
> get good DX!).

It looks like the strong signals are well explained. Probably, we heard an SPS-49(V) equipped ship chugging through the duct somewhere between us and Hawaii. The nature of the QRM occurrence, high altitude first, and the fading characteristics make me sure that it was duct propagation, possibly as the thing was first forming since it preceded amateur heard reports and QSOs by a couple of days. It also appears that I was hearing backscatter off of the duct itself, unless the radar antenna has a lot dirtier pattern than I'd expect since I was hearing signal from the entire scan.

The fact that we haven't observed it before in a couple of years of monitoring also makes me think it was duct-propagated and that ordinarily this stuff is not turned on when the ships are near the continent. That's probably good news for Part 15 devices! I can imagine what a broadband SS wireless device would think of the main lobe of that thing at close range. Something tells me it would take more than FEC to reduce the bit errors (:>).

I imagine that gathering details about it will take some time, but it certainly has been an intense and long opening. I first heard the radar last Thursday and this morning (Wednesday) the kh6hme 144.170 cw beacon is still pounding in at my interior valley QTH with very little fade. At this rate, I'm going to hear radar from the Navy ship on its return trip!

Glenn Elmore n6gn

amateur IP: glenn@SantaRosa.ampr.org
Internet: glenne@sr.hp.com

Date: 13 Jul 1994 14:25:30 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!ceylon!news2.near.net!noc.near.net!jericho.mc.com!fugu!levine@network.ucsd.edu
Subject: Anyone experienced with Cushcraft R7?
To: info-hams@ucsd.edu

In article G5F@world.std.com, dts@world.std.com (Daniel T Senie) writes:
-->In article <rogjdCsoHAs.IHM@netcom.com>,

-->Roger Buffington <rogjd@netcom.com> wrote:
-->>Herb Rosenberg (herbr@netcom.com) wrote:
-->>: Subject: Anyone experienced with Cushcraft R7?
-->>: Newsgroups: rec.radio.amateur.antenna
-->>: Organization: NETCOM On-line Communication Services (408 261-4700 guest)
-->>: Summary:
-->>: Keywords:
-->>

-->>The Cushcraft antennas are wonderful with one caveat: the R-7 has a
-->>propensity to blow traps if you use any power level over perhaps 100
-->>watts. This is a very well-known problem with the R-7, and is apparently
-->>inherent in the design.

-->
-->Interesting. I guess the only thing I can disagree with you on is it being
-->a "well known" problem. I have not experienced any such problems with
-->my R7, but I have not run high power through it either. I guess the
-->problem may not be commonly known on this coast...
-->

I have run several RTTY contests with 300-400 QSOs on my R7 pushing
my AL811 amplifier to it's limits (500W or so) with never having lost
a trap. Thats 10-15-20-40 meters. To compensate for it's number of
traps (read heat instead of RF) I almost always use 500-600 W pep on
SSB when I use it. It has been in use 2 years, prior to that an R5.

-->>
-->>The R-5, which is identical except that it does not cover 40 meters and
-->>has better 20 meter bandwidth, does not have this problem.

My R7 has 2:1 SWR bw from 14.090 - 14.290. I use tuner for anything less than
14.050. No biggie.

-->>
-->>Both antennas perform very very well.
-->>
-->>In my opinion the best system is to go with an R-5, and string a dipole,
-->>shortened if necessary, for 40 meters. Except for dxing, often a dipole
-->>does better on 40 due to polarization and angle of radiation (higher).

I often find the R7 is better on 40 to Europe than my inverted V with the
apex around 50'.

-->and -->>The R-5 is a truly wonderful antenna. I've worked the world with mine,
-->>using only 100 watts.
-->>
-->>The R-7 is probably OK if you won't be running over 100 watts. I still
-->>would go with the r-5 due to the foregoing.

The R7 is rated full power. I have never had any problem with my 600w pep or 500w key down RTTY.

-->

-->I've worked the world with my R7, and find it works very well on 30 meters.

-->on 40 it is too narrow to be useful outside a selected subband.

True, but since RTTY section is so small, no problem. Are there other signals on that band?!

-->

-->--

-->-----

-->Daniel Senie	Internet:	dts@world.std.com
-->Daniel Senie Consulting		n1jeb@world.std.com
-->508-779-0439	Compuserve:	74176,1347

Bob Levine KD1GG 7J1AIS VK2GYN formerly KA1JFP
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Date: Wed, 13 Jul 1994 14:24:33 GMT
From: netcomsv!netcom.com!greg@decwrl.dec.com
Subject: August 73 for Ramsey Watchers
To: info-hams@ucsd.edu

Those interested in the progress of Ramsey kits will enjoy August's edition of 73.

Reviewed is the fox-hunt transmitter which uses the same RF section as the FM transceiver. The review pretty much confirms what QST said about the transceiver and what has been said here, before: if you try to put it on the air, it's a REAL good idea to use a spectrum analyzer to see that it's legal. The reviewer's kit-built version, apparently through no fault of his own, was *WAY* out of legal specs. Translation: not a good purchase for the new ham trying to get on the air economically, if s/he doesn't have access to an excellent test-bench.

Also making its first appearance is the ad for the 20m transceiver. Looking at the price, NOT buying the kit seems like a good deal (built

Greg

Purdy ridiculous, eh?

```
-->SRR>Organization: University of Maryland College Park
```

-->
-->SRR>To all of you who are awaiting licenses from the FCC:
-->
-->SRR>This word from my buddy John Creel, WB3GXW, the contact for Laurel, MD VEC:
-->
-->SRR>DO NOT CALL THE FCC FOR INFORMATION ON YOUR LICENSE STATUS!
-->SRR>DO NOT CALL THE FCC FOR INFORMATION ON YOUR LICENSE STATUS!
-->SRR>DO NOT CALL THE FCC FOR INFORMATION ON YOUR LICENSE STATUS!
-->
-->SRR>He said that upon his tour of the FCC license processing facility last week,
-->SRR>they now have SIX computer terminals, but only ONE person processing
-->SRR>licenses (this is, sadly, true). The FCC may actually consider volunteers
-->SRR>at some point, but there are certain legalities involved with this that
-->SRR>have not been circumvented yet.
-->
-->SRR>He also said that the FCC is receiving upwards of 50 calls a DAY! And that
-->SRR>in the time it takes to receive a phone call, TWO licenses could be processed!
-->SRR>The backlog is now at 15,000 Form 610s!!!
-->
-->SRR>If your application has taken over 26 weeks, contact your testing team, or
-->SRR>your VEC - but let THEM call the FCC, if necessary.
-->
-->SRR>Supposedly, the delay is growing BECAUSE so much time is being spent on
-->SRR>fielding these phone calls (guess who answers them? The person doing the
-->SRR>data entry, who has to leave the computer to get the damned phone!).
-->
-->SRR>I do have a question though - haven't they ever heard of answering machines?
-->
-->I have a question for you. I have heard that there were a group of
-->volunteers in the Gettysburg, PA area, all of whom are volunteer
-->examiners, who have volunteered, at no cost to the FCC, to come in
-->and do data entry, to get rid of this backlog. The FCC turned down
-->this offer! Doesn't make too much sense. They have VE's and VEC's
-->handling the testing, so why not VDEP's (Volunteer Data Entry
-->People!)? I've been waiting 14.5 weeks now and it's getting
-->ridiculous. When I took my test, they told me it would be 8 weeks
-->until I got my license. Then when I had waited 8 weeks, I was told
-->10 weeks. After 10 weeks, I was told 12 weeks. At 12 weeks,
-->people were telling me 14 weeks. Now at 14.5 weeks of waiting,
-->people are saying anywhere from 16 to 17 weeks!! Absolutely
-->ridiculous!! BTW, in case you and others are not aware, this same
-->ONE PERSON entering data into the computer also has to do the
-->commercial licenses as well! Just think how pissed you would be if
-->your job and/or livelihood depended on getting a license that you
-->have to wait 17 or 20 or 26 or who knows how many weeks for??!!
-->

-->---

--> ≥ OLX 2.2 ≥ Darryl Linkow (818)346-5278 9 am - 5 pm PDT

Bob Levine KD1GG 7J1AIS VK2GYN formerly KA1JFP
levine@mc.com <--Internet email Phone(508) 256-1300 x247
kd1gg@wa1phy.ma <--Packet Mail FAX(508) 256-3599

Date: 13 Jul 1994 14:29:05 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!ceylon!news2.near.net!
noc.near.net!jericho.mc.com!fugu!levine@network.ucsd.edu
Subject: GPS Magellan....inaccurate readings?
To: info-hams@ucsd.edu

In article 233728ASUSEE@MAINE.MAINE.EDU, <ASUSEE@MAINE.MAINE.EDU> () writes:

-->Magellan reports readings that are several hundred meters
-->off in elevation as well as location. The elevation wanders
-->as thou it can't decide. Is this normal for GPS equip?
-->Thanx in advance
-->Alan
-->N1QWT

There is random error purposely introduced into the GPS system.
I dont know the magnitude for sure, but a few hundred meters
sounds about right.

Dont want our enemies using our GPS system for their smart
bombers.

Bob Levine KD1GG 7J1AIS VK2GYN formerly KA1JFP
levine@mc.com <--Internet email Phone(508) 256-1300 x247
kd1gg@wa1phy.ma <--Packet Mail FAX(508) 256-3599

Date: Tue, 12 Jul 1994 18:03:00 GMT
From: ihnp4.ucsd.edu!agate!iat.holonet.net!michaelr!ray.wade@network.ucsd.edu
Subject: Icom 471a
To: info-hams@ucsd.edu

On 07-11-94 KATZ, TED J TJK wrote to ALL...

KT> From: formail.TCPBRIDGE.FS3.FS5.TEDK%smte@formail.formation.COM (Katz,
KT> Ted J TJ
KT> K)
KT> Newsgroups: rec.radio.amateur.misc
KT> Subject: Icom 471a
KT> Date: 11 Jul 94 15:09:11 GMT
KT> Message-ID: <9407111201.AA27936@formail.formation.com>
KT> Organization: ucsd usenet gateway
KT>
KT> I would like to mod a ic471a (UHF MULTI MODE) to recieve at 421
KT> MHZ (ATV Repeater output). This rig is not listed in any book I
KT> can find.
KT> Any info would help
KT>
KT> Email tedk@formail.formation.com
KT> 73 de N3OWM :->
KT>

Forget it. ATV signals are 600 Khz wide. The audio subcarrier is 50 Khz
(wideband FM). If you COULD tune to the ATV signal, all you could get is
an S meter reading. Your radio is narrow band FM, 5 Khz.

K5JCM

* OFFLINE 1.56 * Bad command or filename. Go stand in the corner.

.....

Date: 12 Jul 1994 20:03:51 GMT
From: olivea!charnel.ecst.csuchico.edu!csusac.ecs.csus.edu!holtzman@uunet.uu.net
Subject: Opening up Kenwood battery pack
To: info-hams@ucsd.edu

Michael White (mwhite@mitre.org) wrote:

> J.D. Cronin wrote:

> > I'd like to replace the NiCad cells in the battery pack...
> > There are no screws visible...It looks like the entire thing was glued.

> Either glued or sonic welded, which amounts to the same thing. The only way
> I've found is to cut the case apart using a very sharp hobby knife. Be
> very, very careful, as you have to exert a lot of force, and one slip could

> cost you a finger. The case can be reassembled with glue pretty well, but
> it will never be perfect. Good luck.

> Mike, N4PDY

I have been able to open some battery packs by breaking them open. The advantage is that there is no kerf, that is, gap caused by the cutting instrument. I have found the best way to break the case is to put it into the vise and apply pressure in the right spots. It usually breaks, or cracks along the glue seams. You may have to do some additional prying with a screwdriver to completely open the case. Some battery packs use very strange cells that I have not been able to locate.

Hope this helps.

James Holtzman kc6ncg (holtzman@shazam.ecs.csus.edu)

Date: Wed, 13 Jul 94 13:27:57 GMT
From: ihnp4.ucsd.edu!swrinde!pipex!ibmpcug!ibmpcug!rcp!scott@network.ucsd.edu
Subject: Re: Does CW as a pre-req REALLY Work?
To: info-hams@ucsd.edu

I hate to get involved in these CW/no-CW arguments, as they crop up everywhere, but
this mail is probably the first one I have ever agreed with ENTIRELY.

I got my class B UK license (no code, VHF and up only) in 1990, and since then wanted to get on HF, to find out what all this DX stuff was. The licensing conditions state that to operate below 30MHz, you have to demonstrate the ability to send and receive Morse Code. That's the rule, and so I started to learn the Morse code.

Towards the end of 1992 I thought to myself 'Hang on - I've been trying to learn this darn code for nearly two years, and I'm still nowhere near the 12wpm required to get a class A license', and I telephoned the Radio Society of Great Britain (RSGB) to get the application form to book a place in the next Morse test, which was three weeks from when I telephoned.

In the next three weeks I did more CW practise than I had ever done in the previous two years, because I had *paid* for the test, and did _not_ want to fail it!

I passed the test, and posted the pass slip to the licensing organisation on Christmas

Eve (now that was a nice Christmas present!). On the 9th of January I had my new class
A callsign.

I think it was worth it, and although I don't use CW much as a mode, I feel better knowing that I could use it, so when that rare DX appears on CW I would at least stand
a good chance of working him/her! (Although I have tried to work TN0CW for 4 days now!!)

The point I am making is that to operate on HF, you need to pass a morse test. Although
this test varies considerably from country to country, you still have to take a Morse
test.

If you want to operate on HF, take the test. If you are happy not to use HF, then you
don't need to take it. If you don't want to learn CW, then get used to using VHF. These
are the rules.

Scott

P.S. I didn't want to operate on CW, I wanted to use SSB and digital modes.

In <77396187534n12@131.168.114.12> Earl=Morse%EMC=Srv%Eng=Hou@bangate.compaq.com
writes:

>>>

>>>I don't care if I have to learn 13 WPM for my general upgrade.

>>>I don't care if it's 20 WPM. I'll learn it if that's what the FCC

>>>says I gotta do. >Matt Rupert

>That's the right attitude!

>>

>>Hi Matt, I have a hypothetical question for you. What would you do if

>>you tried for hundreds of hours to learn to receive Morse code at 13

>>wpm and just could not do it? I can force my brain to function as a

>>modem but I know somebody who cannot, and he is otherwise a very

>>knowledgable, intelligent person and an asset to the ham community.

>>

>What if.....

>I couldn't pass the BAR because I didn't know anything about criminal law, should I be allowed to practice any law?

>I couldn't back up a tractor/trailer rig, should I be given an over the road

truck driver's license?

>I couldn't name all the bones in the body, should I be allowed to practice medicine?

>I couldn't learn to receive Morse code, should I be allowed to get a ham license that would require the code?

>But I only wanted to.....

>practice divorce law.

>drive forward.

>do brain surgery.

>talk on the radio.

>And I'm a real nice/knowledgeable/intelligent person and would be an

>asset to the legal/truck driving/medical/ham community.

>Everything in life has its requirements, we meet those requirements or don't participate.

>Earl Morse

>KZ8E

>KZ8E@bangate.compaq.com

--

```
=====
| Scott Earle,           | Internet  : scott@rcp.co.uk       |
| Senior Software Engineer, | AMPRnet   : g0swg@g0swg.ampr.org  |
| RCP Ltd,              | NTS BBS   : G0SWG@GB7AVM         |
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| High Street,          | Tel (work): +44 235 510116       |
| Didcot, Oxon. OX11 8EQ | FAX (work): +44 235 511084       |
=====
```

Date: Tue, 12 Jul 1994 17:51:00 GMT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!agate!iat.holonet.net!

michaelr!ray.wade@network.ucsd.edu

Subject: TOWERS AND GUYS...

To: info-hams@ucsd.edu

On 07-10-94 SEAN R. STEPANEK wrote to ALL...

SR> Subject: TOWERS AND GUYS...

SR> Date: 10 Jul 94 23:31:20 -0500

SR>

SR> Hello,

SR>
SR> I have just acquired about 85 feet of tower and am anxious to get
SR> it up,
SR> but I need to ask a few questions first....
SR>
SR> 1) What is the recommended placement of the guy wires? Something
SR> along the lines of 45%, 75%, and 100%?
SR>
SR> 2) What is the recommended number of guys per foot? I know this
SR> and
SR> the previous question also relate to windloading, but at this
SR> point I am looking for general starter guides.
SR>
SR> 3) What is the maximum height before the FAA must be notified?
SR> I am NOT near any airports.
SR>
SR> 4) What is the maximum height I can go without needing a light?
SR>
SR> 5) Anything else that I am forgetting and needing to know?
SR>
SR> Thanks for your help.... you can E-mail to the following address...
SR>
SR>
SR> Sean / N0PBA DJ1 @ VAX1.MANKATO.MSUS.EDU

Better get yourself a handbook on this subject. For example, Rohn manufacturing has one for their towers. Your questions cannot be answered from the sketchy information you furnished.

Two things affect the strength of any tower. Vertical loading (a result of weight and forces transferred into a down direction, like guy tension) and horizontal loading (the result of wind force). As an example, an 86.6 mph wind "pushes" on every square inch of the exposed (above ground) tower/antennas/rotor/coax/etc with a force of 30 pounds per square foot. And every square inch of EVERYTHING must be included in the calculations.

For towers under 300 feet, most areas of the US are in the 30 PSF (A) zone, according to data (50 year mean reoccurrence interval charts) subscribed to by reputable tower manufacturers. No area of the US has ANY less expected loading. Some areas of the US can expect 40 (B) and 50 (C) PSF loading. 40 PSF = 100 MPH. 50 PSF = 111.8 MPH. Its exponential. You may note that many crank-up/telescopic tower manufacturers list some number of square feet of antennas that can be used on their towers based on "50 MPH windloading". A 50 MPH wind is nothing. It represents 13 PSF.

If you want to see just how severe windloading is, I suggest you simply

look at the elaborate structure supporting any information sign on any highway.

NO tower should EVER be erected without knowing what windload/weight can safely be resisted by the structure. 85 feet is a serious height and deserves serious study. 200 feet is the limit without special permit from the FAA and that is reduced as you get closer to an airport.

K5JCM

* OFFLINE 1.56 * He who dies with the most toys is dead.

.....

Date: Wed, 13 Jul 1994 14:09:41 GMT
From: netcomsv!netcom.com!greg@decwrl.dec.com
To: info-hams@ucsd.edu

References <2vrs1k\$5d@news1.hh.ab.com>, <2vs5rm\$rfm@cville-srv.wam.umd.edu>,
<385@doghouse.win.net>
Subject : Re: IARU Contest

In article <385@doghouse.win.net> jsalemi@doghouse.win.net (Joe Salemi) writes:
>

>In article <2vs5rm\$rfm@cville-srv.wam.umd.edu>, Scott Richard Rosenfeld
(ham@wam.umd.edu) writes:

>>This was, by far, the worst conditions I have EVER seen in my 8 years of
>>contesting! As you'll see in my .signature, I run a dipole antenna. Most
>>of the time, there's at least SOMETHING above 20 meters to speak of.
>>

>>
>Yea, the only ones who seemed to rack up the high scores were the
>contesters with beams and at least kW amps. I made a few contacts on
>10m and 15m with my Butternut vertical and 100W, but nothing to write
>home about, and all but one (0A4EI on 15m) in the Eastern portion of
>North America. Even 20m wasn't that hot, though the Russian stations
>did seem to finally start coming in after around 0300z.

Funny how impressions differ. I jumped in around 2300Z, just to see what could be done with 20m. With the TR7 barefoot and a 90-foot wire on an SGC-230, I worked 'em as fast as I could tune 'em. Only one or two state-side stations. I did just about 30 countries in 4+ hours, all on 20. Mostly worked stations on the second or third call.

Agreed, though, that the land above 14Mhz was mostly waste-land. Look at it this way... ...it saves that nagging feeling that 'I really ought to be changing bands.' :-)

So for me, at least, the number of available DX stations overcame the terrible propagation. The only bad thing was that it seemed like the peak conditions on 20m led to really tough band crowding, since there was hardly anyplace to spread out.

Greg

Date: Wed, 13 Jul 1994 15:19:23 GMT
From: netcomsv!netcom.com!rogjd@decwrl.dec.com
To: info-hams@ucsd.edu

References <rogjdCsoHAs.IHM@netcom.com>, <CsuIDt.G5F@world.std.com>,
<rogjdCsvrpE.4Fy@netcom.com>,
Subject : Re: Anyone experienced with Cushcraft R7?

Roger Buffington (rogjd@netcom.com) wrote:
: Daniel T Senie (dts@world.std.com) wrote:

: : Interesting. I guess the only thing I can disagree with you on is it being
: : a "well known" problem. I have not experienced any such problems with
: : my R7, but I have not run high power through it either. I guess the
: : problem may not be commonly known on this coast...

: A friend of mine (local) who had an R-5 eventually sold it due to the
: trap problem. He did an informal on-the-air survey of something like 25
: hams with R-5 whom he worked on the air. All but one had had to request
: at least one new trap from Cushcraft. But out here in Southern Cal, yes,
: the problem is well known and widely discussed.

: : >

Folks, I screwed up in this post. Hadn't had my morning coffee! :-)

IT IS THE R-7, NOT THE R-5, WHICH HAS THE PROBLEMS WITH THE TRAPS.

SORRY ABOUT THE SCREWUP. THE R-5 TO MY KNOWLEDGE HAS ***NO*** PROBLEMS
WITH TRAPS.

PLEASE SUBSTITUTE R7 FOR R5 IN MY EARLIER POST.

There. I feel better.

--

rogjd@netcom.com
Glendale, CA
AB6WR

End of Info-Hams Digest V94 #788
